

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Atty ARC-249-316  
Dkt.

C# M#

SAITO, H. et al.

TC/A.U.

3673

Serial No. 10/659,272

Examiner: Pickard

Filed: September 11, 2003

Date: March 1, 2007

Title: GASKET MATERIAL



Jm

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**RESPONSE/AMENDMENT/LETTER**

This is a response/amendment/letter in the above-identified application and includes an attachment which is hereby incorporated by reference and the signature below serves as the signature to the attachment in the absence of any other signature thereon.

☐ **Correspondence Address Indication Form Attached.****Fees are attached as calculated below:**

Total effective claims after amendment 0 minus highest number  
previously paid for 20 (at least 20) = 0 x \$50.00 \$0.00 (1202)/\$0.00 (2202) \$

Independent claims after amendment 0 minus highest number  
previously paid for 3 (at least 3) = 0 x \$200.00 \$0.00 (1201)/\$0.00 (2201) \$

If proper multiple dependent claims now added for first time, (ignore improper); add  
\$360.00 (1203)/\$180.00 (2203) \$

Petition is hereby made to extend the current due date so as to cover the filing date of this  
paper and attachment(s)  
One Month Extension \$120.00 (1251)/\$60.00 (2251)  
Two Month Extensions \$450.00 (1252)/\$225.00 (2252)  
Three Month Extensions \$1020.00 (1253)/\$510.00 (2253)  
Four Month Extensions \$1590.00 (1254)/\$795.00 (2254)  
Five Month Extensions \$2160.00 (1255)/\$1080.00 (2255) \$

Terminal disclaimer enclosed, add \$130.00 (1814)/\$65.00 (2814) \$

☐ Applicant claims "small entity" status. ☐ Statement filed herewith

Rule 56 Information Disclosure Statement Filing Fee \$180.00 (1806) \$ 0.00

Assignment Recording Fee \$40.00 (8021) \$ 0.00

Other: \$ 0.00

**TOTAL FEE ENCLOSED \$ 0.00**

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140. A duplicate copy of this sheet is attached.

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By Atty: Arthur R. Crawford, Reg. No. 25,327Signature: 



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

SAITO, H. et al.

Atty. Ref.: 249-316; Confirmation No. 5620

Appl. No. 10/659,272

TC/A.U. 3673

Filed: September 11, 2003

Examiner: Pickard

For: GASKET MATERIAL

\* \* \* \* \*

March 1, 2007

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**RESPONSE**

This is responsive to the Official Action of December 12, 2006. Claims 1 and 4-11 are pending in the application and all claims stand rejected on the basis of prior art; *see* items 2, 4 and 5 of the Action. Common to all three rejections is the primary reference of U.S. patent 5,743,971 to Inoue.

Applicants' claims are directed to a gasket material which includes a metal plate and a film made from silica and the *reaction product* of a mixture of a first acid component and a second acid component and a metal or metal compound of a metal other than chromium or a chromium compound. The first acid component is specified from among the specific group of acids listed and the second is different from the first acid and is a fluoro-complex.

Applicants wish to emphasize that their claims specifically recite a "reaction product" and, unlike the applied prior art, applicants take specific steps to bring about this reaction to form the reaction product.

In one embodiment of the invention, the acid component and the metal or the compound of the metal are reacted under conditions of a temperature of 150-250°C; *see* page 7, line 7 of the

description of the invention and the associated description which reports that the heating and drying accomplished within the designated temperature range causes the acid component and the metal or metallic compound to react with each other so that a metallic compound is produced. This metallic compound and the silica also present form a film.

In contrast to the present invention, the disclosure of the Inoue reference seems to go out of its way to avoid any reaction products and indeed there appear to be no reaction products that occur between the three major components (as specified in the Abstract of the citation) namely an oxidative substance (A) a silicate (B) and at least one member selected from various metals and fluoro-metal anions of them. Inoue then enables only a mixture of components and not a reaction product.

In the Official Action it is argued that "fluoro-titanic acid" in column 2, line 40 is relevant, however this is simply mentioned as a source of Ti ions. This "fluoro-titanic acid" is not present to react with the other metal. Instead, the Ti ion source is mixed with (A) the oxidative substance and (B) the silicate and/or silicon dioxide. Apparently (A), the oxidative substance, is mixed for accelerating the film forming speed.

Again, contrary to what is apparently being suggested in the current Official Action, in Inoue, even if (A) an oxidative substance, (B) a silicate and/or silicon dioxide and (C) metal cations which include Ti ions arising from the fluoro-titanic acid are mixed only a simple mixture results, not a reaction or reaction product and therefore it would be impossible for this reference to provide a "reaction product" as required by applicants' claims.

This is also consistent with other passages of the applied reference which suggests that the simple mixture is not held in an appropriate "reactive" heating temperature nor is the mixing/interchange time sufficient to result in a chemical reaction. As noted above, applicants' description requires that the relevant components be reacted at temperatures ranging from 150° to 250°C until the requisite reaction product(s) is/are formed.

In summary, it is submitted that Inoue does not disclose a "film made from silica and a reaction product" as featured in independent claims 1, 7 and 8 of the present application, thus all three prior art-based rejections which are based on this document are incorrect and should be withdrawn.

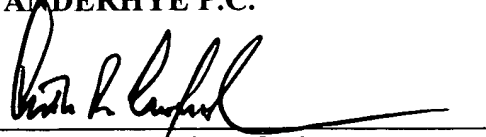
Reconsideration and favorable action are solicited.

SAITO, H. et al.  
Appl. No. 10/659,272  
March 1, 2007

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:



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